UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,963	11/24/2003	Richard D. Dettinger	ROC920030278US1	5212

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EXAMINER
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ART UNIT	PAPER NUMBER
2168	

DATE MAILED: 05/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	10/720,963	DETTINGER ET AL.
	Examiner	**Art Unit**	
	Mahesh H. Dwivedi	2168	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/24/2003*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statements (IDS) submitted on 11/24/2003 and

10/27/2004 have been received, entered into the record, and considered. The

submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statements are being considered by the examiner.

Drawings

2.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference character(s) not mentioned in the

description: **"Fig. 2"**. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or

amendment to the specification to add the reference character(s) in the description in

compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid

abandonment of the application. Any amended replacement drawing sheet should

include all of the figures appearing on the immediate prior version of the sheet, even if

only one figure is being amended. Each drawing sheet submitted after the filing date of

an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next

Office action. The objection to the drawings will not be held in abeyance.

Specification

3.   The disclosure is objected to because of the following informalities: The applicant

is reminded that all drawing should have an appropriate synopsis in the **"BRIEF**

DESCRIPTION OF THE DRAWINGS" section. In the instant application, Figures 2A

and 2B do not have a synopsis.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of

matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the

conditions and requirements of this title.

5.   Claims 1-6 and 7-10 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

6.   Regarding independent claims 1 and 7, the claimed method consists solely of the

manipulation of an abstract idea. A process that consists solely of the manipulation of

an abstract idea is not concrete or tangible. See In re Warmerdam, 33 F.3d 1354, 1360,

31 USPQ2d 1754, 1759 (Fed. Cir. 1994). See also Schrader, 22 F.3d at 295, 30

USPQ2d at 1459. The claim is devoid of any limitation to a practical application in the

technological arts, and hence non-statutory.

For such subject matter to be statutory, the claimed method must be limited to a

practical application of the abstract idea in the technological ads. A claim is limited to a

practical application when the method, as claimed, produces a concrete, tangible and

useful result', i.e., the method recites a step or act of producing something that is

concrete, tangible and useful. See AT &T, 172 F.3d at 1358, 50 USPQ2d at 1452.

The examiner suggests that the claimed "method" be amended to read

"computerized method".

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public
>
> use or on sale in this country, more than one year prior to the date of application for patent in the United
>
> States.

8.   Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by

Kingberg et al. (U.S. Patent 5,734,867).

9.   Regarding claims 1 and 11, **Kingberg** teaches a method and computer-readable

medium comprising:

A) providing, for a requesting entity a query specification comprising a plurality of

logical fields for defining an abstract query (Abstract, Column 3, lines 61-67, Figure 10);

and

B) providing mapping rules which map the plurality of logical fields to physical entities

of the data (Abstract, Column 3, lines 41-67, Figures 3, and 8-9).

The examiner notes that "The applications then use a Logical Data Access

Interface to access each of the required physical relational database tables via the

Logical Data Access Layer" (Abstract) and "The computer system having a logical data

access module for receiving a logical database request from a requesting application

via the requesting applications's logical data interface, forming one or more database queries having physical table and physical column names using said logical to physical data mapping table and said join criteria tale" (Column 3, lines 61-67) are analogous to **"providing, for a requesting entity a query specification comprising a plurality of logical fields for defining an abstract query"**. The examiner further notes that "The Logical Data Access Layer provides a rich set of functions for allowing an Application to control and manage a database, build and execute database queries and interface with physical database" (Abstract), "The Logical Data Access Layer determines which of the physical tables and associated columns are required to satisfy the application request and then builds one or more database query statements containing the appropriate physical table and column names" (Abstract), and "The computer system having a logical data access module for receiving a logical database request from a requesting application via the requesting applications's logical data interface, forming one or more database queries having physical table and physical column names using said logical to physical data mapping table and said join criteria tale" are analogous to **"providing mapping rules which map the plurality of logical fields to physical entities of the data"**.

Regarding claims 2 and 12, **Kingberg** further teaches a method and computer-readable medium comprising:

A) wherein the abstract query comprises at least one selection criterion and a result specification (Abstract, Column 17, lines 1-20, 40-42, Figure 9).

The examiner notes that "The Logical Data Access Layer determines which of

the physical tables and associated columns are required to satisfy the application

request and then builds one or more database query statements containing the

appropriate physical table and column names" (Abstract) is analogous to **"wherein the**

abstract query comprises at least one selection criterion and a result

specification".

Regarding claims 3 and 13, **Kingberg** further teaches a method and computer-

readable medium comprising:

A) issuing the abstract query by the requesting entity according to the query

specification (Abstract); and

B) transforming the abstract query into a query consistent with the particular physical

data representation (Abstract).

The examiner notes that "The applications then use a Logical Data Access

Interface to access each of the required physical relational database tables via the

Logical Data Access Layer. Applications then use logical entity type and logical entity

type attribute names as specified in the Logical Data Model in making Logical Data

Requests to the Logical Data Access Layer" (Abstract) is analogous to **"issuing the**

abstract query by the requesting entity according to the query specification". The

examiner further notes that The Logical Data Access Layer provides a rich set of

functions for allowing an Application to control and manage a database, build and

execute database queries and interface with physical database" (Abstract), and "The

Logical Data Access Layer determines which of the physical tables and associated

columns are required to satisfy the application request and then builds one or more

database query statements containing the appropriate physical table and column

names" (Abstract) are analogous to **"transforming the abstract query into a query**

consistent with the particular physical data representation".

Regarding claims 4 and 14, **Kingberg** further teaches a method and computer-

readable medium comprising:

A) where the query consistent with the particular physical data representation is one of

a SQL query and an XML query (Column 5, lines 1-10).

The examiner notes that "The LDAL 207 determines which of the physical tables,

columns and attributes are required and then builds one or more SQL statements, and

executes the SQL statements" (Column 5, lines 1-4)" and "build SQL queries" (Column

5, line 9) are analogous to **"where the query consistent with the particular physical**

data representation is one of a SQL query and an XML query".

Regarding claims 5 and 15, **Kingberg** further teaches a method and computer-

readable medium comprising:

A) wherein the mapping rules comprise an access method for each of the plurality of

logical fields (Column 5, lines 55-67, Figure 4).

Regarding claims 6 and 16, **Kingberg** further teaches a method and computer-readable medium comprising:

A) wherein the access method describes a location of the physical entities of the data (Column 8, lines 8-19, Column 27, lines 57-64).

Regarding claims 7 and 17, **Kingberg** teaches a method and computer-readable medium comprising:

A) issuing an abstract query by a requesting entity according to a query specification of the requesting entity (Abstract);

B) wherein the query specification provides a definition for the abstract query according to logical fields (Abstract, Column 3, lines 61-67, Figure 10); and

C) transforming the abstract query into a query consistent with the particular physical data representation according to mapping rules which map the logical fields to physical entities of the data (Kingberg, Abstract, Column 3, lines 41-67, Figures 3, and 8-9).

Regarding claims 8 and 18, **Kingberg** further teaches a method and computer-readable medium comprising:

A) wherein the abstract query comprises at least one selection criterion and a result specification (Abstract, Column 17, lines 1-20, 40-42, Figure 9).

Regarding claims 9 and 19, **Kingberg** further teaches a method and computer-readable medium comprising:

A) wherein the mapping rules comprise an access method for each logical field of the abstract query (Column 5, lines 55-67, Figure 4).

Regarding claims 10 and 20, **Kingberg** further teaches a method and computer-readable medium comprising:

A) wherein the access method describes a physical location of the physical entities of the data (Column 8, lines 8-19, Column 27, lines 57-64).

Regarding claim 21, **Kingberg** teaches a computer comprising:

A) a requesting entity comprising a query specification providing a definition for an abstract query according to logical fields (Abstract, Column 3, lines 61-67, Figure 10);

B) a data repository abstraction component comprising mapping rules which map the logical fields to physical entities of data (Abstract, Column 3, lines 41-67, Figures 3, and 8-9); and

C) a runtime component for transforming the abstract query into a query consistent with the physical entities of data according to the mapping rules (Abstract, Column 3, lines 41-67, Figures 3, and 8-9); and

D) a processor adapted to execute contents of the memory (Column 29, lines 20-28, Figure 10).

Regarding claim 22, **Kingberg** further teaches a computer comprising:

A) a storage device containing the data (Column 28, lines 51-57, Figure 10).

The examiner notes that "storage areas, for example RAM or disk" (Column 28, line 57) is analogous to **"a storage device containing the data"**.

Regarding claim 23, **Kingberg** further teaches a computer comprising:

A) where the query consistent with the particular physical data representation is one of a SQL query and an XML query (Column 5, lines 1-10).

Regarding claim 24, **Kingberg** further teaches a computer comprising:

A) wherein the abstract query comprises at least one selection criterion and a result specification (Abstract, Column 17, lines 1-20, 40-42, Figure 9).

Regarding claim 25, **Kingberg** further teaches a computer comprising:

A) wherein the mapping rules comprise an access method for each of the plurality of logical fields (Column 5, lines 55-67, Figure 4).

Regarding claim 26, **Kingberg** further teaches a computer comprising:

A) wherein the access method describes a location of the physical entities of the data (Column 8, lines 8-19, Column 27, lines 57-64).

Conclusion

10.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,996,558 issued to **Dettinger et al.** on 07 February 2006. The subject matter disclosed therein is pertinent to that of claims 1-26 (e.g., methods to use mapping rules for query application).

U.S. Patent 6,360,223 issued to **Ng et al.** on 19 March 2002. The subject matter disclosed therein is pertinent to that of claims 1-26 (e.g., methods to use mapping rules for query application).

U.S. Patent 6,460,043 issued to **Tabbara et al.** on 01 October 2002. The subject matter disclosed therein is pertinent to that of claims 1-26 (e.g., methods to use mapping rules for query application).

U.S. Patent 5,640,550 issued to **Coker** on 17 June 1997. The subject matter disclosed therein is pertinent to that of claims 1-26 (e.g., methods to use mapping rules for query application).

Contact Information

11.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mahesh Dwivedi whose telephone number is (571) 272-2731. The examiner can normally be reached on Monday to Friday 8:20 am – 4:40 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached (571) 272-3642. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Mahesh Dwivedi

Patent Examiner

Art Unit 2168

May 03, 2006

Leslie Wong

Primary Examiner